II. REMARKS

Formal Matters

Claims 1-26 are pending after entry of the amendments set forth herein.

Claims 1-9, 12-14, 16, and 17 were examined and were rejected. Claims 10, 11, 15, and 18-23 were withdrawn from consideration.

Claims 3, 7, and 9 are amended. The amendments to the claims were made solely in the interest of expediting prosecution, and are not to be construed as acquiescence to any objection or rejection of any claim. The amendment to claim 7 is editorial in nature; as such, no new matter is added by the amendment to claim 7. Support for the amendments to claims 3 and 9 is found in the claims as originally filed, and throughout the specification, in particular at the following exemplary locations: claim 3: paragraph 0081; and claim 9: paragraph 0088. Accordingly, no new matter is added by these amendments.

Claims 24-26 are added. Support for new claims 24-26 is found in the claims as originally filed, and throughout the specification, including the following exemplary locations: claim 24: paragraph 0081; claim 25: paragraph 0090; and claim 26: original claims 1, 5, and 6. Accordingly, no new matter is added by these new claims.

Applicants respectfully request reconsideration of the application in view of the remarks made herein.

Claim objections

Claim 7 was objected to. Claims 2 and 5-9 were objected to.

Claim 7

The Office Action stated that in the recitation "where n is any base," it is suggested that the "n" be capitalized.

Claim 7 is amended as suggested in the Office Action.

Claims 2 and 5-9

The Office Action stated that in the recitation "the TLR agonist is a nucleic acid that comprises the sequence 5' CG 3'," it is suggested that "nucleic acid" be changed to "nucleic acid sequence" or "polynucleotide."

As noted in the specification, the terms "polynucleotide" and "nucleic acid" are used interchangeably. Specification, paragraph 0075. Applicants see no need to change "nucleic acid" to "polynucleotide."

Conclusion as to the claim objections

Applicants submit that the above-noted objections to claims 2 and 5-9 have been adequately addressed. Applicants respectfully request that the objections be withdrawn.

Rejection under 35 U.S.C.§112, second paragraph

Claim 9 was rejected under 35 U.S.C.§112, second paragraph.

The Office Action stated that claim 9 recites "sequence N-N-N-N"; and states that there is insufficient antecedent basis for this recitation in the claim.

Claim 9 is amended to recite "wherein the sequence N_p comprises at least two CG dinucleotides that are either contiguous with each other or are separated by one nucleotide, two nucleotides, or three nucleotides." Support for this amendment is found in the specification at, e.g., paragraph 0088.

Applicants submit that the rejection of claim 9 under 35 U.S.C. §112, second paragraph, has been adequately addressed in view of the remarks set forth above. The Examiner is thus respectfully requested to withdraw the rejection.

Obviousness-type double patenting

Claims 1-2, 6-9, 12, and 13 were rejected under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1-9 and 15 of U.S. Patent No. 6,498,148 (hereinafter as "Raz").

The Office Action stated that the population of individuals and the product being administered are the same. However, claims 1-9 and 15 of U.S. Patent No. 6,498,148 relate to treating asthma. Instant claims 1, 2, 6-9, 12, and 13 recite a method of treating airway remodeling. As such, instant claims 1, 2, 6-9, 12, and 13 are patentably distinct from claims 1-9 and 15 of U.S. Patent No. 6,498,148.

Rejection under 35 U.S.C. §102(e)

Claims 3-5 were rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent Publication No. 2004/0241149 ("De Simone").

The Office Action stated that DeSimone discloses a method of administering lactic acid bacteria containing unmethylated CG dinucleotide to treat idiopathic pulmonary fibrosis. Applicants respectfully traverse the rejection.

DeSimone discusses the use of lactic acid bacteria to activate an immune response in a subject having or at risk of having an inflammatory response to lipopolysaccharide. DeSimone, paragraph 0027. DeSimone discusses lactic acid bacteria treatment of patients with acute pouchitis. DeSimone, paragraphs 0041-0061. DeSimone states that the results demonstrate that lactic acid bacteria treatment of patients with pouchitis is able to induce a significant increase in the expression of the anti-inflammatory cytokine IL-10, and that both inducible nitric oxide synthase and matrix metalloproteinase activity were reduced following lactic acid bacteria treatment. DeSimone, paragraph 0041. However, unmethylated, CG-containing DNA is but one component of lactic acid bacteria. DeSimone provides no evidence that the observed effects were due to unmethylated, CG-containing DNA. As such, DeSimone cannot anticipate any of claims 3-5.

Nevertheless, and solely in the interest of expediting prosecution, claim 3 is amended to recite administering an effective amount of a purified toll-like receptor agonist. DeSimone neither discloses nor suggests administering a method of treating interstitial lung fibrosis, involving administering an effective amount of a purified TLR agonist.

Applicants submit that the rejection of claims 3-5 under 35 U.S.C. §102(e) has been adequately addressed in view of the remarks set forth above. The Examiner is thus respectfully requested to withdraw the rejection.

Rejection under 35 U.S.C.§102(b)

Claims 1, 2, and 12 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by Kline et al. ((1998) *J. Immunol.* 160:2555-2559; "Kline").

The Office Action stated that Kline discloses a method of modulating airway inflammation by CpG oligodeoxynucleotides in a murine model of asthma. Applicants respectfully traverse the rejection.

The model discussed in Kline is not a model of airway remodeling resulting from chronic asthma. Instead, the model discussed in Kline is a model of acute asthma. There is no disclosure or suggestion in Kline that a CpG oligodeoxynucleotide would be efficacious in treating airway remodeling in chronic asthma. As such, Kline does not anticipate any of claims 1, 2, or 12.

Applicants submit that the rejection of claims 1, 2, and 12 under 35 U.S.C. §102(b) has been adequately addressed in view of the remarks set forth above. The Examiner is thus respectfully

requested to withdraw the rejection.

Rejection under 35 U.S.C. §103(a)

Claims 3, 4, 14, 16, and 17 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over De Simone in view of Britton ((2000) *Thorax* 55:537-540; "Britton").

The Office Action stated:

1) DeSimone discloses a method of administering lactic acid bacteria containing unmethylated CG dinucleotide to treat idiopathic pulmonary fibrosis (IPF);
2) DeSimone does not teach administration of a corticosteroid, IFN-γ, or both, in combination with a polynucleotide comprising the sequence 5'-CG-3'; and
3) Britton characterizes the treatment of IPF using a combination of IFN-γ and prednisolone.

The Office Action stated that it would have been obvious to modify themethod steps taught by DeSimone and further incorporate administering a combination of IFN-γ and prednisolone. Applicants respectfully traverse the rejection.

DeSimone discusses the use of lactic acid bacteria to activate an immune response in a subject having or at risk of having an inflammatory response to lipopolysaccharide. DeSimone, paragraph 0027. DeSimone discusses lactic acid bacteria treatment of patients with acute pouchitis. DeSimone, paragraphs 0041-0061. DeSimone states that the results demonstrate that lactic acid bacteria treatment of patients with pouchitis is able to induce a significant increase in the expression of the anti-inflammatory cytokine IL-10, and that both inducible nitric oxide synthase and matrix metalloproteinase activity were reduced following lactic acid bacteria treatment. DeSimone, paragraph 0041.

However, as discussed above, unmethylated, CG-containing DNA is but one component of lactic acid bacteria. DeSimone provides no evidence that the observed effects were due to unmethylated, CG-containing DNA. As such, DeSimone does not disclose or suggest a method of treating interstitial lung fibrosis, involving administering a TLR agonist such as a nucleic acid comprising 5'-CG-3'.

Britton does not cure the deficiency of DeSimone. There is no disclosure or suggestion in Britton of a method of treating interstitial lung fibrosis, involving administering a TLR agonist such as a nucleic acid comprising 5'-CG-3'. As such, DeSimone, alone or in combination with Britton, cannot render any of claims 3, 4, 14, 16, and 17 obvious.

Nevertheless, as noted above, claim 3 is amended to recite administering an effective amount of a purified toll-like receptor agonist. DeSimone neither discloses nor suggests administering a method of

treating interstitial lung fibrosis, involving administering an effective amount of a purified TLR agonist. Britton makes no mention of use of a TLR agonist to treat interstitial lung fibrosis. As such, DeSimone, alone or in combination with Britton, cannot render any of claims 3, 4, 14, 16, and 17 obvious.

Applicants submit that the rejection of claims 3, 4, 14, 16, and 17 under 35 U.S.C. §103(a) has been adequately addressed in view of the remarks set forth above. The Examiner is thus respectfully requested to withdraw the rejection.

III. CONCLUSION

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number UCSD-292.

Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

Date: May 4, 2007

By: _____
Paula A. Borden
Registration No. 42,344

BOZICEVIC, FIELD & FRANCIS LLP
1900 University Avenue, Suite 200
East Palo Alto, CA 94303
Telephone: (650) 327-3400
Facsimile: (650) 327-3231

F:\DOCUMENT\UCSD\292\Response to OA_112806.doc